WHAT IS CLAIMED IS:

1. A system combined with a load sharing structure and a primary/backup structure, the system having a plurality of sub-systems, the system comprising:

a primary unit disposed in each of said plurality of sub-systems to share an event processing work load according to a load sharing processing order for events;

a backup unit disposed in each of said plurality of sub-systems to receive and store only a minimum amount of data that is necessary for restoration from a primary unit in preparation for when a primary unit malfunctions;

a configuration management unit comprising an index mapping each backup unit with corresponding primary units, the configuration management unit managing a position of the primary unit for the backup unit;

a distributed algorithm processing unit being programmed and configured to determine which sub-system processes events when the events are generated;

a shared resource unit shared and used in each sub-system and occupied in the primary units;

an event generating unit being programmed and configured to generate events; and

a distributed control environment comprised of a middleware platform and being programmed and configured to distribute processing among the plurality of sub-systems, the configuration management unit, the distributed algorithm processing unit, and the shared resource unit.

2. The system of claim 1, each backup unit corresponds to a primary unit that is located in a different sub-system than the backup unit.

3. The system of claim 1, the configuration management unit comprising an index for processing load sharing between the primary units and comprising an index mapping each backup unit to a corresponding primary unit stored in the configuration management unit.

4. The system of claim 1, the distributed algorithm processing unit being programmed and configured to assign generated events in a round robin fashion to the primary units.

5. The system of claim 1, the distributed algorithm processing unit being programmed and configured to assign generated events to primary units that are the least congested.

6. The system of claim 1, the distributed algorithm processing unit being programmed and configured to calculate load sharing between the primary units and to assign a newly generated event to a primary unit based on said calculation.

7. A distributed control system, comprising:

a plurality of sub-systems, each sub-system comprising a primary unit and a backup unit, each primary unit being programmed and configured to process generated events;

a configuration management unit maintaining an index mapping backup units with corresponding primary units, each backup unit storing data needed to restore a corresponding primary unit should the corresponding primary unit fail to process an event;

a distributed algorithm processing unit being programmed and configured to assign generated events to a primary unit within a sub-system for processing; and

a logical shared resource unit being accessible by each primary unit from each sub-system in the processing of said generated events.

8. The system of claim 7, each backup unit storing a minimum amount of data needed to replicate a corresponding primary unit if the corresponding primary unit fails.

9. The system of claim 7, the configuration management unit being programmed and configured process load sharing between the sub-systems.

10. The system of claim 7, the distributed algorithm processing unit being programmed and configured to assign generated events to various ones of said plurality of sub-systems in a round robin fashion.

11. The system of claim 7, the distributed algorithm processing unit being programmed and configured to assign newly generated events to a least congested sub-system for processing.

12. The system of claim 7, the configuration management unit and the distributed algorithm processing unit being programmed and configured to assign events only to functioning primary units and not to backup units.

13. The system of claim 7, the configuration management unit and the distributed algorithm processing unit are programmed and configured so that backup units do not participate in load sharing.

14. The system of claim 8, said backup units storing only an index of events, an ongoing status of the corresponding primary unit and information as to which resources are occupied.

15. The system of claim 7, each backup unit serves to duplicate a primary unit located in a different sub-system than the backup unit.

16. The system of claim 7, the component management unit and the distributed algorithm processing unit are programmed and configured to assign newly generated events to a primary unit in a sub-system that is least congested.

17. The system of claim 7, the configuration management unit being programmed and configured to generate a new primary unit and a new backup unit when a new sub-system is added to the system.

18. The system of claim 17, the configuration management unit being programmed and configured to reconfigure which primary units correspond to which backup units when a new sub-system is added to the system and a new primary unit and a new backup unit are generated.